## ABSTRACT

The invention provides isolated nucleic acid molecules encoding PAAD-domain containing polypeptides and functional fragments thereof, including fragments containing PAAD domains, NB-ARC domains and LRR domains, encoded polypeptides, and antibodies. Also provided are methods of identifying polypeptides and agents that associate with a PAAD-domain containing polypeptide or fragment thereof, or that alter an association of a PAAD domain-containing polypeptides. Further provided are methods of identifying agents that modulate PAAD domain-mediated inhibition of NFKB activity, or modulate an activity of an NB-ARC domain of a PAAD domain-containing polypeptide. Also provided are methods of modulating NFKB transcriptional activity in a cell, and methods of altering expression of a PAAD domain-containing polypeptide in a cell.